

Modern Money Theory and New Currency Theory

A comparative discussion, including an assessment of their relevance to monetary reform¹

Joseph Huber² [Martin Luther University, Germany]

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Abstract

This paper discusses Modern Money Theory (MMT) from the perspective of a New Currency Theory (NCT) as represented by proponents of monetary reform. In the paradigmatic framework of currency teachings versus banking teachings, MMT, in contrast to its self-image as a chartal theory of money, represents banking theory much more than currency teaching. Its understanding of fractional reserve banking and monetary sovereignty is misleadingly incomplete. Thus, NCT's analyses appear to be a more adequate foundation for modern sovereign money.

JEL codes E5, G21, G28

Keywords Monetary theory, sovereign money, monetary reform, banking school, currency school, modern money theory, new currency theory

Introduction: monetary reform policies need more support from academia

To represent a respected economic paradigm, or to be supported by people who represent one, is important for making it onto the political agenda. Weak expert support is a main bottleneck for advancing monetary reform policies. With which economic theories can monetary reform be compatible?

Everything in the vein of classical and neoclassical economics has proved to be unsupportive. Something similar applies to the Austrian and Neo-Austrian School in as far as their idea of free banking on a gold standard is involved. There is, however, some degree of agreement on the Neo-Austrian School's criticism of fractional reserve banking as the root cause of crises. Whether Keynesianism might be helpful is not clear. In his 1923 Tract on Monetary Reform Keynes took the present two-tier fractional reserve system as a basis, assuming that minimum reserve requirements and central-bank base rates are effective instruments for controlling banks' credit and deposit creation. Both instruments, however, have turned out to be ineffective.

Among those that are more likely to be approachable are post-Keynesianism, monetary circuit theory (circuitism), disequilibrium and financial crisis theories, monetarism of some shape, institutional and historical economics, economic sociology, constitutionalism and public law, as well as ecological economics.

The question now concerns the extent to which Modern Money Theory (MMT) and the kind of neo-chartalism they stand for belong in that group of approachable schools. Thus, a comparative discussion of MMT would seem appropriate.

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² Chair of Economic Sociology Em, Martin Luther University, Halle, Germany.
Mail: huber@soziologie.uni-halle.de.

Currency versus Banking. New Currency Theory

In this context, I should be explicit about my own point of view. It can be described as currency theory. Currency School and Banking School teachings are particularly suited to explaining what monetary reform is about, also bearing in mind the extent to which the matter of currency versus bank credit on the basis of a fractional currency base is inscribed in monetary history back to ancient Greece and Rome.³ 'Currency vs banking' is equally useful to discussing how far MMT and monetary reform might go together.

Making reference to those teachings does not intend to replicate these in the historical form from the first half of the nineteenth century. For example, in up-to-date currency teaching there can no more be reference to gold as a monetary standard. Rather, I want to carve out structural elements that have continued to exist and develop, which represent the core components of, say, a New Currency Theory, NCT for short. The following table contains a number of relevant aspects.

Currency vs banking. Arguments and counterarguments

Currency School <i>Criticism of fractional reserve banking</i> <p>... which is seen both as illegitimate in that it grants monetary privileges to banks, and as dysfunctional in that it causes major problems of instability and crises beyond the single banks involved.</p>	Banking School <p>Credit creation on a fractional reserve base is neither fraudulent nor dysfunctional, but a necessity of industrial growth in order to overcome material restrictions of traditional metal currencies.</p>
Banking School <p>On the grounds of the <i>law of large numbers</i>, fractional reserve banking involves no more risk than lending on a full reserve base. Bankers know from experience how large a reserve they actually need.</p>	Currency School <p>In practice, <i>banks tend to overshoot and get overexposed</i> to various risks, whereby the central factor underlying all of this is unrestrained credit and debt creation on a basis of fractional reserves.</p>
Currency School <i>Banking and financial crises are of monetary origin.</i> □ <p>Unrestrained, overshooting issuance of banknotes and credit creation result in inflation, asset inflation, currency depreciation, recurrent boom-and-bust cycles, and banking crises. In the process, bank money (deposits) proves to be unsafe.</p>	Banking School <i>Crises do not have monetary causes.</i> <p>Boom-and-bust cycles and other malfunctions do not have monetary causes. There must be other economic and financial reasons.</p>

³ Cf. Huerta de Soto 2009, chapters I–III.

<p>Banking School <i>Fullarton's Law of Reflux</i> Inflation and currency depreciation do not occur for monetary reasons. If such phenomena occurred, customers would immediately convert banknotes into coin, or withdraw deposits.</p>	<p>Currency School Orderly conversion or withdrawal is not reported to have ever happened. Rather, vain attempts to do so have resulted in bank runs. Fullarton's Law refers to traditional coin currencies. With modern fiat currencies it has become irrelevant. One cannot escape inflation by converting deposits into cash, or banknotes into coin.</p>
<p>Currency School <i>Control of the money supply</i> Because any amount of money can be created at discretion, there must be some institutional arrangement and rules in order to keep the money supply in a commensurate relation to real economic growth. Without an anchor of relative scarcity—then gold, today the productive potential of an economy at full capacity – money and capital markets will not reach a stage of 'equilibrium' and self-limitation.</p>	<p>Banking School <i>The money supply takes care of itself</i> Like any market, money and capital markets are self-regulating and stabilizing at a point of equilibrium of supply and demand. Trust in free markets. – Efficient financial markets are supposed to price in all relevant information (EMH by Fama). – Markets are supposed to have superior crowd intelligence (Hayek).</p>
<p>Banking School <i>Real bills doctrine</i> It all depends on observing the real bills doctrine: as long as bankers accept as collateral only good and short-term IOUs, the money supply will be commensurate with real demand, the money will be put to productive use, and no overshooting money supply will occur.</p>	<p>Currency School <i>Thesis of real bills fallacy</i> In actual fact, bankers do not observe the real bills doctrine, and probably cannot because one never knows whether respective collateral will prove to be 'real' or fictitious.</p>
<p>Currency School <i>Chartalism. State theory of money</i> Money is part of a state's sovereign prerogatives and a question of monetary sovereignty. A state's monetary prerogative includes 1. determining the currency, i.e. the official unit of account 2. issuing the money, i.e. the means of payment denominated in that currency as legal tender 3. benefitting from the seigniorage thereof.</p>	<p>Banking School <i>Commodity theory of money</i> Money is a commodity like any other, thus an endogenous creation of market participants, in particular of banks. Banknotes and demand deposits are a private affair, based on private contracts. Trust in free banking.</p>

<p>Currency School <i>Separation of money and bank credit</i></p> <p>Separation of powers between the creation of money and the use of money in banking and the economy in general. Banks should be free enterprises, but must not have the privilege to create themselves the money on which they operate. Control of the quantity of money is the responsibility of a state authority (e.g. central bank, treasury, currency commission).</p>	<p>Banking School <i>Money and credit are identical and thus cannot be separate.</i> (... which is certainly true if asserting a banking perspective of loaning money into circulation).</p>
<p>Currency School <i>Debt-free money</i></p> <p>Money does not need to be loaned into circulation, but can equally be spent into circulation free of interest and redemption, i.e. debt-free.</p>	<p>Banking School <i>All money is debt</i></p> <p>The creation of money includes the creation of interest-bearing debt, and extinction of the money upon redemption.</p>

One would not be altogether wrong in saying that the currency-school elements in the table are in line with the analyses and policy approaches put forth by most contemporary reform initiatives, in particular the *American Monetary Institute*, *Positive Money* in the UK, *Sensible Money* in Ireland, *Monetative* in Germany and *Monetary Modernisation* in Switzerland.⁴ These clearly represent new currency teachings (NCT).

Furthermore, most advocates of monetary reform explicitly understand what they are doing as an endeavor to modernize the money system – which implies modernizing money theory.⁵ MMT too, explicit in its name, seems to have modernized money theory. MMT scholars include Warren Mosler, Scott Fullwiler, Stephanie Kelton and Randall Wray.⁶ As their ‘forefathers’ they cite Godley (sector balances), Lerner (functional finance) and Mitchell-Innes (state theory and credit history of money). Against the background of ‘currency vs banking’, NCT definitely represents a modernized currency paradigm. MMT’s positioning within this field, however, is ambiguous. MMT declares itself to represent a state theory of money and to stand for sovereign currency. One thus might expect it to be a currency teaching too. In actual fact, however, MMT repeatedly reproduces banking views, and even has it that bank money under contemporary fractional-reserve banking is a benign implementation of the sovereign-currency system we are supposed to have. This creates misunderstanding and talking past one another.⁷

⁴ Cf. American Monetary Institute (www.monetary.org), Positive Money (www.positivemoney.org; www.positivemoney.org.nz), Sensible Money (www.sensiblemoney.ie), Monetative (www.monetative.de), MoMo Switzerland (vollgeld.ch). Also see www.positivemoney.org/get-involved/international/.

⁵ Cf. Jackson 2013; Jackson/Dyson 2013; Ryan-Collins/Greenham/Werner/Jackson 2012; Robertson 2012 97–155; Huber 2010; Zarlenga 2002 651–685; Huber/Robertson 2000.

⁶ MMT sources I have used are: Fullwiler/Kelton/Wray 2012; Hudson 2004; Knapp 1905/ 1924; Lerner 1943, 1947; Mitchell-Innes 1913, 1914; Mosler 1995; Wray (ed) 2004, 2011, 2012.

⁷ Papers with similar critical analyses of MMT include Zarlenga 2002, Fiebiger 2011, Lavoie 2011, Roche 2011, Walsh/Zarlenga 2012, Huber 2013.

Accordances: criticism of still pre-modern textbook wisdom on money and banking

Let us pin down what MMT and NCT have in common. Both groups, just as most post-Keynesians, scrap some still pre-modern textbook wisdom on money and banking. These commonalities apply to a number of aspects of how the present system of fractional reserve banking works, as summarized in the following.

The monetary system is constitutive to modern economies

NCT and MMT share a basic understanding that the money system is pivotal for the economy. Money governs finance, as finance governs the economy. In a modern, highly financialised economy based on credit, money is not just a 'veil' on economic transactions as neoclassical theory has it, but is constitutive of the entire economy, not only enabling transactions, but also financing, and ever more often forerunningly pre-financing, investment and consumption. Money issuance has a pre-allocative and pre-distributive function.

Modern money is fiat money

Modern money is and ought to be fiat money that can freely be created at discretion. The metal age of money is over. Debates on intrinsic value of money are obsolete, including a return to gold as called for by the Neo-Austrian School. The value of money is its purchasing power which is derived from and dependent on an economy's productive potential.

The standard model of the credit or money multiplier is obsolete

Any variant of the multiplier model is based on the understanding that deposits are in actual fact deposited; that is, based upon a given amount of exogenous money such as gold or sovereign coin. The respective money base is thought to be, say, re-cycled in an iterative process of re-lending deposited money, deducting each time a reserve rate in order to be able to satisfy current customer demand for converting deposits into cash. This kind of model may historically in a way have applied to coin currencies, including bullion-based paper currencies. It no longer applies to modern fiat money, which is non-cash at source and can instantly be created at discretion, be this by the central bank or individual banks, in a number of countries also by the treasury. Cash has become a residual technical remnant of diminishing importance, which is exchanged out of and back into the basically cashless supply of money-on-account.

Bank credit creates deposits, not vice versa

MMT and NCT thus also share a common analysis of banks' credit and deposit creation under fractional reserve banking. Primary credit creates deposits, and banks neither need deposits nor in fact can use them to create credit. Deposits are bank liabilities and (in contrast to traditional cash deposits) do not add to bank liquidity. Deposits are created whenever a bank credits a current account. Indeed, crediting is done 'out of thin air'. At the moment when it is carried out, it has no operational prerequisite except having obtained a banking license which in fact is a license to print money. Banks' money printing, though, is not unconditional. One condition is that banks extend their balance sheets largely in step with each other so that the flows of deposits and central-bank reserves, residually also cash, from and to single banks do not result in major imbalances.

The loanable funds model is largely obsolete. Investment is basically not dependent on savings. Money or capital shortage need not be.

The above implies reconsideration of the traditional textbook model of loanable funds according to which investment equals savings (shared by neoclassics, the Austrian School

and Keynesianism). In a modern money system, investment is basically no longer dependent on savings. Banks can fund real and financial investment (and consumption) without prior savings, and they actually do so when making loans or primarily buying sovereign bonds or real estate. If savings or own capital have an important role to play, it is in obtaining rather than in funding primary credit.

Building upon primary bank credit/deposits, there is secondary on-lending of existing deposits, or investing these, from and among nonbanks, including nonbank financial institutions such as funds and insurance companies. When banks (strictly speaking, commercial or universal banks) are involved, it is always about primary credit.

The banking sector, not central bank, determines the entire money supply.

Banks have the pro-active lead in creating money. Central banks re-act and always accommodate banks' demand for reserves. Banks create credit first, and look for fractional re-financing thereafter.

Chartal theory (state theory) of money

Money is a creature of a state's legal system rather than just another commodity that is spontaneously, or endogenously, created by market participants on a basis of private contracts.

Discrepancies

Beyond the aspects listed above, there are fewer commonalities between MMT and NCT than one might expect. Diverging views relate to:

- the dysfunctions of fractional reserve banking;
- the question of who has and who ought to have control of the money supply (government, central bank, or the banking sector);
- what a sovereign-currency system is and whether we have one;
- whether money necessarily comes with debt;
- what sector-account imbalances can tell us;
- and whether the quantity theory of money and principles of sound finance do apply.

Dysfunctions of fractional reserve banking and the need for monetary reform

If one assumes that the present system of fractional reserve banking is a well-functioning arrangement, one will not recognize a need for monetary reform. This, somewhat surprisingly, is the position of MMT. A hundred years ago, Mitchell-Innes had already idealized fractional reserve banking as a 'wonderfully efficient machinery of the banks'.⁸

MMTers today express no less admiration for what they see as a smoothly run and benign system, apparently unimpressed by the long list of dysfunctions of fractional reserve banking that has been drawn by so many scholars over the last two centuries. The long list of deficiencies includes unstable banks and finances; lack of money safety; inflation and asset inflation; distortion of income distribution to the benefit of financial income at the expense of

⁸ Mitchell-Innes 1913 394 | 31, 402 | 42, 391 | 30. Mitchell-Innes hereby still referred to the now obsolete multiplier model, asserting that 'we are all at the same time both debtors and creditors of each other.'

earned income; and overshooting, or even initial triggering, of economic and financial boom-and-bust cycles, thus proneness to crisis.

MMT could of course not overlook the reality of crises. After the dot.com bubble in 2000, strengthened by the housing and banking crisis from 2007, MMT adopted Minsky as another 'forefather'. This, however, goes as far as identifying oversized credit and debt bubbles as a major cause of crises. It stops short of identifying fractional reserve banking, and central-banks' factual submission to the banking rule, as the root cause and the primary source of all that overshooting money, credit and debt.

For the rest, MMT has adopted a neo-Keynesian idea by Minsky which is for the government and central bank together to act as an 'employer of last resort' and create money to this end. Such ideas evoke outrage among purist central bankers who have rather rigid ideas about keeping monetary and fiscal responsibilities apart. But considering (un-)employment in shaping monetary policy, not just inflation, is part of the U.S. Federal Reserve's official mission. No doubt there is some pragmatic overlap between monetary and fiscal policy in most countries.

MMT describes the situation as if government were creating itself the money it spends on policies aimed at propping up employment and economic growth. However, as will become clear from the explanations below, the 'employer of last resort' idea is just about another variant of Keynesian deficit spending. As is well known, the second part of this, i.e. creating a surplus in better times and paying down the debt incurred in difficult times, never worked (and MMT actually does not see any reason for paying down public debt).

In no way does MMT discuss contemporary approaches to monetary reform. If MMT has a monetary reform idea at all, it relates, in the words of Wray, to that 'strange prohibition to put on a sovereign issuer of the currency'⁹, i.e. for the treasury having to sell its bonds to banks rather than directly to the central bank, all the more as government and central bank are considered to represent one monetary policy unit anyway.¹⁰ Some such reform perspective, though, remains rather inexplicit.

Who has control – central banks or banks? What is the use of interest-rate policy?

Both MMT and NCT, again in accordance with post-Keynesianism, agree that within the present system central banks do not, and actually cannot, implement monetary quantity policy and do not exert control over banks' credit and deposit creation. Central banks always accommodate banks' demand for reserves and cash.

'In the real world', as Mosler states, 'banks make loans independent of reserve positions, then during the next accounting period borrow any needed reserves. The imperatives of the accounting system require the Fed to lend the banks whatever they need. ... A central bank can only be the follower, not the leader when it adjusts reserve balances in the banking system'.¹¹

⁹ Wray 2012 204.

¹⁰ Fullwiler/Kelton/Wray 2012 6; Wray 2012 98, 183.

¹¹ Mosler 1995 5.

This actually means that the banking sector pro-actively determines the entire money supply while central banks just re-act, and residually re-finance. MMT and NCT, however, diverge at this point, in that any currency teaching will react to this finding by wanting to regain quantity control of the money supply. MMT, however, does not care about monetary quantity policy, just about interest-rate policy.

In his macroeconomics textbook, Thomas Sargent explains that:

it has often been argued that the proper function of the monetary authorities is to set the interest rate at some reasonable level, allowing the money supply to be whatever it must be to ensure that the demand for money at that interest rate is satisfied.¹²

Sargent understood this as a reformulation of the Banking School's real bills doctrine, as mentioned before in the table. However, it is a central doctrine in MMT. It was common central-bank practice until the First World War and has been again since the 1990s. Today it is referred to as the short-term interest rate doctrine. Its counterpart is the reserve position doctrine, which was assumed to influence banks' credit creation by setting minimum reserve requirements or by pro-actively setting the amount of reserves a central bank is willing to provide at a time.¹³

A paradigm shift from quantity policy to interest-rate policy comes with a different target, i.e. inflation rate rather than aggregate money supply. This is based on the assumption that the inflation rate is a reliable indicator of scarcity or over-abundance of money.

In view of the recent past, interest-rate policies obviously fare no better than quantity policies did. One reason is that central banks only feel called upon to focus on formal and informal targeting in terms of consumer price inflation, and not upon asset inflation and bubble building. Even if they monitor financial-market dynamics, officially they do not consider asset inflation, although the biggest share of additional money supply in recent decades can be attributed to asset inflation. For example, in the US from 1997–2007 about one-fifth of the additional broad money supply was in growth of real income, two-fifths were in consumer price inflation, and the remaining two-fifths went into asset inflation. In Germany, from 1992–2008, that was even more pronounced in that three-quarters of the additional money supply M1 fuelled asset inflation, while one-eighth was in consumer price inflation and just one-eighth in real economic growth.¹⁴

Furthermore, what is a base rate on a small fraction of bank money supposed to control? In order to uphold 100 euros in demand deposits, including newly made out credit and purchases, the euro banking sector in the years up to the crisis since 2007/08 on average just needed about 3–4 per cent of central-bank money, of which 1.5 per cent was cash for the ATMs, 0.1–0.5 per cent excess reserves for final settlement of payments, and 2 per cent idle obligatory minimum reserve.¹⁵

¹² Sargent 1979 92–95, cited in Poitras 1998 480.

¹³ The term Reserve Position Doctrine (RPD) was coined by Meigs in 1962. Cf. Bindseil 2004 7, 9, 15.

¹⁴ Calculated on data in www.federalreserve.gov/releases/h6/hist;
www.bundesbank.de/statistik/zeitreihen; Deutsche Bundesbank, Monthly Bulletins, tables II.2.

¹⁵ Deutsche Bundesbank, Monthly Bulletins, tables IV.3 and V.3.

Increasing or decreasing interest rates on just 3–4 per cent of bank money will increase or decrease central-bank profits, and will correspondingly drain or add to banks' profit margins. This, however, has no impact on banks' credit creation, since banks' demand for reserves is predetermined by their pro-active dealings and is thus inelastic.¹⁶ For the rest, and as long as the money supply is not tied to an economy's productive potential as the anchor of relative scarcity, GDP-disproportionate credit and deposit creation has no self-restraint until the next bust.

What then is the point of putting so much emphasis on the central bank setting its interest rates (such as the base rate) and controlling interbank rates (such as the Fed Funds rate, EURIBOR or LIBOR) through buying and selling government bonds or any other class of securities? If one were to admit that interest-rate policy is as ineffective as quantity policy was, this would be admitting that fractional-reserve banking has undermined any kind of central-bank control and thus, quite literally, is out of control.

Is the government a creditor or debtor?

When a central bank absorbs government IOUs, or any other class of securities, from banks, the central bank in exchange provides reserves to the banks; and when the central bank releases or resells such securities to the banks, it absorbs reserves from them. In the form of repo transactions and outright purchases, this is an established open market practice.

This would hardly be worth mentioning if MMT did not link to such open market operations a rather central idea, which is that by issuing government debentures, a government issues its own sovereign money. MMT holds that even the present money and banking system represents a sovereign-currency system, and that government debt should not be seen as debt, at least not in the same way as private debt – which is all the more puzzling as MMT insists on all money being debt.

It might appear as if MMT assumes that governments creating their own money by issuing debentures would meet the monetary reform movement's call for sovereign money. Appearances are deceptive. MMT's assertion of 'government debt = sovereign money' turns out to be a rather willful misrepresentation of the actual situation.¹⁷

The mechanism of issuing government IOUs as sovereign money is thought to be as follows. The treasury, which has accounts with the central bank as well as with commercial banks, sells government IOUs to the banks and obtains the money (reserves or bank money) in exchange; then the banks sell the government IOUs to the central bank and are thus refunded in sovereign central-bank reserves. This sort of transaction certainly happens, but is a rather small part of the whole picture and must not be over-generalized.

For MMT's assertion to make sense, we either have to assume a conventional money multiplier process between banks and government, or else the entire amount of bonds would have to be absorbed by the central bank in exchange for reserves and cash. Banks, however, pass on to the central bank only a small part of government bonds. In Europe, central-bank holdings of public debt have in pre-crisis times been about 0.2–4%. In the U.S., the Fed

¹⁶ Fullwiler/Kelton/Wray 2012, 2.

¹⁷ Also cf. Roche 2011.

system's share of government bonds, due to a relatively high minimum reserve requirement of 10%, is about 11–15%, thus is not particularly important either. Foreign central banks hold comparable amounts of a government's debt, if the currency involved is a recognized trading currency.¹⁸

It does not make a big difference if one assumes that all government transactions are carried out via central-bank accounts. Normally, governments transact via central-bank accounts as well as bank accounts. If a government had central-bank accounts only, the banks would certainly need a somewhat bigger base of excess reserves in order to be able to carry out all the payments from nonbanks to the government. But banks do not have to hold minimum coverage reserves on the government deposits involved, for these deposits are central-bank money and need not be covered by central-bank money. And no matter how small or somewhat bigger the base of excess reserves is, banks have those reserves recycled immediately as the government continually expends what it receives, which is to say that what banks transfer to the government on behalf of customers is continually re-transferred to the banks in payments from the government to customers.

MMT even generalizes its position by assuming that treasury spending equals money creation and comes prior to taxation.¹⁹ This is to say that taxes do not fund government expenditure, for government expenditure would create the money that flows back to the treasury by way of taxes.²⁰ This is remindful of medieval tally sticks where this mechanism was evident. With regard to contemporary settings, however, there is no such evidence. Today, it is primarily the banks that decide if and how much money to create, and all economic actors can trigger primary bank credit in that they go into debt with the banks – government, nonbank financial institutions, banks as bank customers, companies, and private households. There is no mechanical sequence in the money circuit.

Don't let yourself be fooled. The biggest part of government expenditure is funded by taxes. Tax revenues represent transfers of already existing money. The money that serves for paying taxes is neither extinguished upon paying taxes, nor is it created or re-created when government spends its tax revenues. In actual fact, this is all about simple circulation of existing money.

An additional part of government expenditure is funded by selling government debentures to nonbanks. Going into debt with nonbanks involves secondary on-lending of already existing money. It does not involve primary credit and debt creation. Primary credit and debt creation only happens when government takes up additional debt with banks; and this – it should be noted – happens as long as the banks want it to happen. If banks and bond markets turn thumbs down, the would-be sovereign-money game is over.

MMT's re-interpretation of the issue of government IOUs as an issue of sovereign money, thus depicting government as a creditor rather than a debtor, is misguided. The real situation is quite obvious and does not need further interpretation: the government enters into debt with banks and nonbanks. The principal has to be redeemed, but is actually revolved, accumulating truly majestic mountains of debt. The entire debt mass is interest-bearing to banks and nonbanks, absorbing in most cases something between a sixth and a third of tax

¹⁸ Arslanalp/Tsuda 2012; ECB, Monthly Bulletins, Table 6.2.1

¹⁹ Tcherneva 2006 70.

²⁰ For a criticism see Fiebiger 2011, Lavoie 2011.

revenues depending on the country and level of government expenditure, in extreme cases more than 50 per cent.²¹

Do we have a sovereign-currency system or a banking regime?

What makes MMT assert that contemporary nation-states are in command of a sovereign-currency system (chartal money)? Partially this is due to the construct of the central bank and government financially constituting one single sector, the public or state sector, in contrast to the private sector. Government and central bank are assumed to cooperate in monetary as well as fiscal policies, and to provide in tandem – in a first, ‘vertical’ step – the economy with the sovereign currency that the banks and the economy need. Banks’ role in this is said to be second or ‘horizontal’, leveraging the ‘vertical’ component of central-bank reserves and cash. Banks are depicted in this as well-intentioned intermediaries between government and central bank, as well as between government and taxpayers.

The ‘horizontal’ leverage thesis actually equals the reserve position doctrine of old.²² It contradicts MMT’s own view of banks’ pro-active credit creation which determines the entire money supply and which is always accommodated by the central bank.

In this context, the public-private two-sector model adopted by MMT is not particularly useful. It may have useful macroeconomic applications, not however in money and banking. The least that the public-private two-sector model would require is to introduce a financial and a real-economic hemisphere into each sector, as suggested by Hudson.²³ Then, however, the thesis of ‘sovereign government money’ would come apart.

One thing needs to be clear in any model: the distinction between banks and nonbanks as well as certain boundaries between monetary and fiscal responsibilities must not be obscured. In the fractional reserve system such as it stands today, government belongs in the group of nonbanks. Lumping government and central bank together in one and the same category of financial institutions creates confusion rather than simplicity. This applies all the more since central banks today act much more often as bank of the banks rather than bank of the state.

MMT’s description of how fractional reserve banking works would rather suggest siding with NCT’s assessment of the present banking system. That is, there may pro forma still be a two-tier mixed system of sovereign currency and bank money. De facto, however, this has turned into a near-complete banking system. There is a factual ‘monopoly’ of bank money (demand deposits). The banking industry fully determines the entire process of money creation, whereas the government, far from being monetarily sovereign, is indebted to and dependent on the banks.

However, the banking sector’s privilege to create primary credit and deposits at discretion should not be misunderstood to mean that the banking business is based on sheer arbitrariness. Banks have to comply with much regulation in operational detail (though

²¹ Meyer 2011; Monatsbericht des Bundesministeriums der Finanzen, Feb 2013.

²² Bindseil 2004.

²³ Hudson 2006. He coined the term FIRE sector, i.e. Finance, Insurance, Real Estate. A similar approach is to subdivide equations of circulation into a financial and real-economic hemisphere as put forth in Werner (2005 185) or Huber (1998 224).

combined with far-reaching capital-market and cross-border deregulation in recent decades). They have to observe legal requirements on liquidity, reserves and capital buffers (though previously very low). And there are practical constraints which restrict banks' ability to extend credit in the short run.

The most important restriction is that all banks expand their balance sheet roughly in step so that outflows and inflows among banks are just about offsetting each other. Otherwise those banks that were individually extending too much credit too quickly would run a liquidity risk – possibly even a solvency risk – when, just as to obtain liquidity, they would have to take up too much debt or sell too many assets. In the long run, though, this does not impair the banking industry's ability to get what they want. The banking sector will basically always be able to be fractionally re-financed and generate enough bank money, equity, collateral etc. by itself. This is just a matter of time. The 'masters of the universe' create theirs perhaps not in six days, but certainly in a couple of months or years.

The overriding purpose of the central bank in this has come to be the 'bank of banks', that is, willing lender of last resort in the service of banking interests. Most nation-states may have a currency of their own. The treasuries still deliver coins, as the central banks deliver banknotes and reserves; however, besides these representing the residual part of the money supply, they do this re-actively on pro-active and overriding bank demand. The nations operate on bank money, not sovereign money. The reality of fractional reserve banking has become one of a state-backed rule of the big banking industry.

For sure, the relationship between the banking sector, central banks, treasury, supervisory authorities and parliament is an intricate web of mutual dependencies. In particular, funding of ever higher levels of government debt by way of bank credit involves a vulnerable relationship of being at each other's mercy. The question is who ultimately holds the whip hand. As was rendered obvious by the eurosystem's sovereign-debt crisis, the banks and bond markets were powerful enough to let governments down, but governments could not afford not to bail out failed banks. A short time before, the closure of Lehman Brothers resulted in an unintended lesson for governments; a lesson for *all* governments, not just those of weaker economies. Unless a state decides to recapture from the banking industry the full and unimpaired monetary prerogative of a sovereign state (as explained below), the government of that state is not really sovereign and will have to give in to the demands of the banking industry.

Is MMT a state theory or banking theory of money? Full and partial chartalism

MMT's strange ideas about governments issuing their own money, involves a special understanding of what chartal money is. 'Charta' is derived from Greek and Latin for paper, document, or legal code. Both MMT and NCT agree that 'money is a creature of the legal order', as Knapp put it.²⁴ The teaching dates back via late-medieval Thomism to Aristotle: 'Money exists not by nature but by law.'²⁵ The formulation of money as a 'creature of the state' is Lerner's.²⁶ This contrasts with the classical and Austrian School theory that money is

²⁴ Knapp 1905 32–33 and 145; Engl. 1924, reprint 1973, 92–95.

²⁵ Aristotle, *Ethics* 1133 a 30.

²⁶ Lerner 1947 313, 1943; Mitchell-Innes 1913 378–390.

a spontaneous creature of markets, or of barter.²⁷ Most often the latter view is referred to as the commodity theory of money.²⁸

At first glance, it might seem as if both MMT and NCT rely on the same notion of chartalism. But seeing money as a creature of the law is less common ground than one might expect. Most people understand by sovereign money or chartal money a means of payment issued by the treasury or the central bank. Similarly, NCT as well as today's monetary reformers attach three aspects to a state's monetary prerogative:

1. determining the national unit of account (currency prerogative)
2. issuing the money denominated in that currency (legal tender prerogative)
3. benefitting from the first-user advantage of new money (prerogative of seigniorage, be this in the form of genuine or interest-borne seigniorage).

MMT, by contrast, only acknowledges the first one, but holds a different view on legal tender and bank money; and remains silent on the question of seigniorage, or comparable monetary privileges of the banking sector. This reflects a typical attitude of nineteenth-century national liberalism, which is particularly present in the State Theory of Money by G. Fr. Knapp and equally in the articles by Mitchell-Innes of that time. To Knapp it was not really important whether a nation's money is issued by the state. This can be, but does not need to be the case. The state's basic role, according to Knapp, is to define the national currency unit, just as the state defines unified weights and measures. The decisive factor for the establishment of a general means of payment then is what a state's treasury accepts in payment of taxes, or the courts in payment of penalty charges, and what state agencies use themselves in fulfilment of their obligations.²⁹ If the government accepts and uses bank money, then bank money is the official currency (in the sense of means of payment). Knapp put it this way:

All means by which a payment can be made to the state form part of the monetary system. On this basis, it is not the issue, but the acceptance... which is decisive.³⁰ – A state's money will not be identified by compulsory acceptance, but by acceptance at public cash desks.³¹

This teaching on currency or money was carried forward by Keynes and especially by Lerner and adopted again by MMT. MMT's chartalism can thus be characterized as being partial or incomplete in that it includes only the first of three components. NCT, by contrast, stands for full or complete chartalism encompassing all of the three components. This difference of concept explains why in MMT fractional reserve banking can be interpreted as part of a chartal money system, and why bank money can be seen as an integral part of an alleged sovereign money supply.

For reasons mentioned in the chapter before, such a partial understanding of chartalism, from Knapp to MMT, must be challenged. For about 200 years, fractional reserve banking has proved over and over again to be dysfunctional. In recent decades, moreover, the system has in actual fact mutated from a mixed sovereign and bank money system into a dominating banking system, and from a system based on sovereign currency into a regime pro-actively

²⁷ Cf. Hudson 2004 (barter vs debt theories of money).

²⁸ Cf. Ryan-Collins/Greenham/Werner/Jackson 2012 30–37 (commodity vs credit theory of money).

²⁹ Knapp 1905 86, 99, 101.

³⁰ Knapp 1905 86. Engl. Knapp 1973 [1924] 95.

³¹ Knapp 1905 Intro p.VI.

determined by bank money. The minor extent to which nation-states still may have monetary sovereignty is open to question. For the most part today, monetary sovereignty is something that has to be recaptured from the banking industry.

Is all money debt? Money may be credited into existence, but does not need to constitute debt

The explanations given above may also help to understand why there is a row over whether or not money needs to be debt. Knapp left this question open. Mitchell-Innes, though, insisted on the 'nature of money' to be credit and debt in a rather compulsory way.³² Bezemer ridiculed monetary reformers by comparing the notion of debt-free money to something as impossible as *dry water*.³³

From a banking point of view, this is certainly a matter of course and the purest form of banking doctrine: money is a demand deposit created by bank credit, which represents an interest-bearing debt of the primary borrower to the bank. This, however, overlooks that even in fractional reserve banking the situation is not confined to loaning money into existence. Banks can carry out on a large scale what was formerly the privilege of sovereigns, that is, they purchase assets with their own bank money. Banks thus not only loan money into circulation, but also spend it into circulation. Even if this applies to the purchase of assets only, the deposits created need not be redeemed in any case – think of gold, stocks or real estate – and they may not even yield interest or other payments on the principal. Thus, in a number of special cases, even bank money does not need to be debt; or just in the sense of representing a bank liability that needs only small fractional backing by cash and reserves.

In a paper dealing with this matter, Walsh and Zarlenga concluded that 'money need not be something owed and due, it's what we use to pay something owed and due. ... We pay our debt with money.'³⁴ In real-economic transactions money is used as a means of settlement. As such it does not create or transfer debt. The inscription on dollar notes is absolutely appropriate: 'This note is legal tender for all debts, public and private' – period.

Moreover, the creation and issuance of money can, but need not, involve a financial transaction of lending/borrowing and redeeming. In actual fact and as a rule, traditional coin currencies for about 2,500 years were created and issued debt-free by being spent rather than loaned into circulation by the rulers of the realm.

From a sociological or ethnological point of view, it is plausible to say that, historically, money has developed in a context of social obligations, duties and debts of various kinds. Mutuality, 'tit for tat', demanding things from others and being liable for things to others are the very stuff of social textures. In primary social relations, though, no matter whether archaic or modern, this has nothing to do with money and banking. MMT scholars have devoted some work to showing that debt and credit existed earlier than monetary units of account, and contributed to the latter's development, just as such units of account existed earlier than coin currencies and have contributed to the latter's existence.³⁵ This makes sense. But why would this be proof of the nature of money to be credit and debt? It is evidence of money as an instrument for

³² Mitchell-Innes 1913 392 | 30, see also 391, 393, 395–405; Wray 2012 269.

³³ Dirk Bezemer in an interview with Silfur Egils on Icelandic TV, 14 April 2013.

³⁴ Walsh/Zarlenga 2012 2.

³⁵ Cf. the contributions of Wray, Henry, Hudson in Wray (ed.) 2004.

handling credit and debt, and thus cannot in itself normally be expected to be credit and debt. The idea of paying a debt with another debt of the same kind only seems to make sense within a framework of banking-type reasoning. Outside such self-contained reasoning it is less obvious.

The compulsory identification of money and debt just creates banking-doctrinal confusion. It confuses the instrument with the object, i.e. it erroneously identifies the unit of account with what is accounted or measured, and confuses the means of payment with what has to be paid. In addition, as I want to repeat, it ignores or misrepresents 2,500 years of coin currencies when new, additional money typically was not loaned into circulation against interest, but spent into circulation debt-free by the rulers who had reserved for the state the monetary prerogative of coinage and seigniorage, i.e. the second and third component of a state's monetary prerogative.

Debt money, i.e. the false identity of credit/debt and money, is not a necessity at all. What was true for traditional currencies holds all the more true for modern fiat money, because it can freely be created at discretion by those who are authorized to do so. There is no reason why modern money should not be spent into circulation debt-free by a monetary authority rather than being loaned into circulation as debt money.

If money is loaned into circulation (including the purchase of yield-bearing financial assets such as bonds and stocks), this creates interest-borne seigniorage (and maybe capital gains or losses). If money is spent into circulation through government expenditure, or as citizens' dividend, for the purchase of real-economic goods and services, this creates genuine seigniorage free of interest and redemption. Debt-free money, to come back to Bezemer's *dry water* metaphor, might rather be likened to *pure water*, not contingent upon credit and debt at source.

To currency teachings, the false identity of money and credit is the very root cause of the system's dysfunctions. Accordingly, the most fundamental component of any currency teaching is to separate the control of the money supply from the use of that money in banking and finance.³⁶

At this point, I would like to insert a semantic consideration. The word 'credit' has a double meaning. On the one hand, the meaning corresponds to making a loan; on the other hand, crediting means writing a have-entry into a ledger or account. In the latter sense, students obtain credits or credit points for successfully completing courses, but these credits do not even represent money, much less a loan.

If bank accounts are credited, the amount credited is money. This money can, but need not, come from a loan; it can equally be the proceeds of sales, earned or financial income, a subsidy or welfare payment, or a private gift or donation. In this sense, 'crediting' is just another word for adding non-cash money to an account. Accordingly, modern money is surely 'credited' to an account, but the kind of underlying transaction – loan, purchase, gift – is of course not at all predetermined by the write process of crediting.

³⁶ Whale 1944 109.

How to account for sovereign money

Two members of Monetative, T. Gudehus and Th. Mayer, have identified up to seven ways in which a monetary authority, in this case the central bank, can account for debt-free money issuance in double-entry book-keeping.³⁷ All of these options are technically feasible, though not all are equally sensible and adequate.

Not really adequate, for example, is accounting for genuine seigniorage by making a loan to the government, but free of interest and without specified maturity, and re-interpreting this as a sort of perma-credit that the government is not really expected to pay back. Correspondingly, the central bank has perma-claims and perma-liabilities on its balance sheet, representing that part of the stock of money that has been issued through genuine seigniorage.

It is more adequate to proceed in analogy to the way in which coin is normally accounted for. That is, cash in vault as well as sovereign money-on-account would be capitalized upon creation, thus extending the central bank's balance sheet, and then given away for free to the treasury, or sold to the banks, thus contracting the balance sheet again; or loaned to banks, thus prompting an asset swap from liquid money to a credit claim, and a liability swap from own capital to overnight liability.

Are sector-account imbalances and sound public finances irrelevant?

There is yet another aspect of MMT that should be addressed. It concerns sector balances, as already discussed (a public and a private sector, and if need be a foreign one). The starting point is that in a system of sector accounts the sum of all balances nets out to zero.³⁸ Sector balances owe much to Keynes. The emphasis of Keynes was on identifying *imbalances*, which were seen as problematic, and more problematic the bigger they grew. The Bancor Plan for a world trading order that he wanted to put onto the agenda of Bretton Woods in 1944 was designed to avoid big trade and current-account imbalances.

MMT, however, and again not too explicit about this, suggests a re-interpretation of public-private sector balances. The emphasis is on pointing out that for net government debt in the public sector there are corresponding net fortunes in the private sector; which is to say that within the oversimplified framework of this two-sector model, private financial fortunes necessitate public debt – in any case both sides netting out to zero, as if this were to say, ‘you see, things are netting out, no problem here’.

But problems there are.³⁹ Interest payments on ever bigger public debt are a drain on tax revenues and curtail a government's scope of action. Thus, either additional debt will have to be incurred, or ever more public functions will be chronically underfunded. At the same time, much of the public debt, in Europe actually the major part, is held by banks, another big slice by other financial institutions such as funds and insurance companies, and only a minor part of about 10–15% by private persons. As a result, the receipt of related interest payments is very unequally distributed. In addition, much of the government debt is held by foreigners. Beyond critical thresholds this comes with political and economic problems of its own.

³⁷ Cf. Gudehus 2013; Mayer 2013.

³⁸ Wray 2012 xv, 1–38.

³⁹ Also cf. Roche 2011.

'Balances netting out' is a mere book-keeping statement. It does not explain by itself its meaning in terms of actual economic conditions.

MMT, however, tells us not to bother about the level of public debt and soundness of public finances. The government is not really supposed to pay down its allegedly just 'formal' debt. It hardly makes for sound finances to enter claims in the banks' balance sheets and take liabilities on the government's books, while declaring the corresponding items not really to be claims and debts. To Mosler, financial restraints in a fiat money system are 'imaginary'.⁴⁰ Wray contends that 'for a sovereign nation, 'affordability' is not an issue; it spends by crediting bank accounts with its own IOUs, something it can never run out of'.⁴¹ This is not totally unfounded, but overshooting the mark by far. Any treasurer of a sovereign state with a currency of its own *and* rotten finances can tell.⁴² Printing money cannot compensate for real-economic deficiencies, but compounds these through inflation, financial asset inflation, and a declining exchange rate of the currency.

I cannot go any further into that sector-balances part of MMT here. It should be noted, though, that relying on the two-sector model combines with the Lerner legacy of 'functional finance', which turned out to be quite dysfunctional in practice due to its laxness about deficits and debt. Unlike Keynes, Lerner disapproved of monetary quantity theory and the notion of sound finances, as does MMT today. Mosler's original MMT manifesto was titled *Soft Currency Economics*. Presumably this was not by mistake. As if in a sovereign-money system principles of sound finance could be suspended. I would not want to put myself out for monetary reform, just to see unsound money-printing by the banks being replaced with unsound money-printing by the government.

Conclusion

Coming back now to the question of whether MMT might be supportive of monetary reform. The answer, on balance, is not as positive as one might have expected. MMT, in contrast to its self-image, represents banking teaching much more than currency theory. Its understanding of sovereign currency and monetary sovereignty is misleadingly incomplete. MMT and NCT, together with post-Keynesians, circuitists and others, share a number of views on contemporary banking and credit creation *vis-à-vis* more orthodox positions. But divergences between MMT and NCT as discussed will be hard to bridge.

There might be some common ground if MMT would develop an explicit concept for doing away with that 'strange prohibition to put on a sovereign issuer of the currency', making sure that central banks become again 'bank of the state' and that governments can directly spend genuine seigniorage obtained from sovereign money creation. Direct issuance of sovereign money – this might then indeed be a key premise one is pushing in common. For this to be credible, however, MMT would have to change its mind about fractional reserve banking and bank money; which in turn comes with the implication to upgrade MMT's partial understanding of chartalism to a full understanding of what monetary sovereignty encompasses. Moreover, some such common ground would imply for MMT to think over its contempt of monetary quantity theory and carelessness about deficits and debt.

⁴⁰ Mosler 1995 14.

⁴¹ Wray 2012 194.

⁴² Also see Lavoie 2011 9.

The situation is strangely mirror-inverted when comparing MMT to the Neo-Austrian School. MMT has a comparatively advanced understanding of modern money, but does, irritatingly, not see real problems with the present system of fractional reserve banking. The Neo-Austrian School, conversely, still rests on a traditional concept of cash economies, but is very critical of fractional reserve banking and unsound levels of money, credit and debt.⁴³ New Currency Theory extends beyond both of the two in that it has developed an advanced understanding of modern money, identifies serious deficiencies of fractional reserve banking and thus advocates monetary reform in favor of re-implementing a state's full monetary prerogative.

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⁴³ Cf. Huerta de Soto 2009.

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Author contact: huber@soziologie.uni-halle.de

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